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ABSTRACT

Many countries today recognize the need to initiate a population education program within the school curriculum at all levels. In developing countries, many changes have been brought about by population increases. Enormous needs have been created for housing, schools, medical care, food, and employment. These needs, however, are not being met adequately because the population increase is too rapid. Population education expands the family planning approach beyond mere sex education and includes concern for population growth and natural resources, pollution, good health, and nutrition. It is aimed at educating the reproductive population to the need for a quality life and the means to obtain it. The content of the program, as proposed by the author of these three papers, will include varied fields of study such as anthropology, agriculture, demography, economics, geography, medicine, psychology, science, sociology, and technology. Personnel in these fields act as resource persons for college students and pre-service and in-service teachers. From here, the program is extended into the school programs, including adult and continuing education programs. The author feels the need for this type of program, especially in developing Asian countries. (MA)

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Bangkok, Thailand

SOME GUIDELINES FOR TRAINING POPULATION EDUCATORS*

by

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In many countries of the world, there is increasing recognition of the need to introduce Population Education into the curricula of educational institutions, into the programmes of education for out-of-school youth and adults, and into pre-service and in-service programmes for training personnel for the broad spectrum of occupations in society that involve work with people in an essentially ameliorative role (teachers, social workers, nurses, community development workers, and agricultural extension workers, for example). The urgency of the population situation in the less developed countries, especially in Asia, calls for co-ordinated action in all spheres, and specifically in the field of education for the formulation of a national programme of Population Education that has built into it a comprehensive strategy for reaching various target groups that can be reached through an educational programme, and most of all the target groups that are in the midst of, or on the threshold of, their reproductive behaviour. Curriculum development in the field of Population Education, whatever the target group to be reached, is beset with a number of difficulties such as (a) the traditional conservatism of the educational profession and its built-in resistance to sensitive issues, however large their social significance, (b) the relative newness of the concept of Population Education, (c) the necessity to draw the content of Population Education from a number of disciplines such as demography, economics, sociology, anthropology, biological science, agricultural science, and medical science, and (d) the lack of a corps of persons specially trained in the field of Population Education. It is this last factor, the lack of a category of professional Population Educators, that appears to delay progress most.

The development of a tradition of specialisation in Population Education with a sufficient number of persons competent within it is a matter of the highest priority. In this connection, it is necessary to identify in the first place persons who have certain academic or professional qualifications and an interest

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in undergoing training in Population Education, and in the second place persons who can be entrusted with providing training to the selected trainees. The former may be found from among teacher educators in institutions of teacher education, adult educators, and teachers in schools and colleges (including universities), and generally they would have academic or professional qualifications in one or more areas having a bearing on Population Education. In so far as the second category is concerned, a completely self-sufficient individual to provide the training may be difficult to find, and what appears to be needed is essentially a team effort. There seems little doubt that in every country there would be found a handful of men and women whose combined expertise and insights would suffice for collectively undertaking the training of a core group of Population Educators. In general, they would be drawn from several fields of specialisation and employment. Some would be in universities, some in research institutions, some in government administration, some perhaps in agriculture, commerce, industry and so on. They would not be professional Population Educators in the sense in which such a designation would be usually applicable. Essentially, their insights and expertise would be confined to one or two aspects of Population Education rather than to most of it or the whole of it, and the total time for which each person is available for the purpose of the training course may even be a couple of hours. It is, however, the combined insights and expertise of this nuclear group that could bring into being the professional Population Educator. In other words, by exposing a number of capable, interested and enterprising persons to the expertise and insights of the above mentioned nuclear group, brought together for a short period to transmit their expertise and insights, every country has to generate its first cohort of Population Educators, whose function it would then be to develop further, by study, thought and discussion, the expertise and insights they have acquired from the nuclear group, and thereafter undertake to train more Population Educators as well as to provide instruction in Population Education to selected groups. As a pre-requisite to the identification of the nuclear group, a delineation of the content of a possible course of training for Population Educators is needed. Some guidelines for the content of a possible course for Population Educators are given below. The phrase "a possible course" is used advisedly to indicate the fact that there is no uniqueness about it, and that there could well be other approaches. From the point of view of identifying a nuclear group of resource persons to be pioneers in the task of training Population Educators, a delineation of the content of a possible course helps in matching each topic to be presented with a person or persons who might be invited or commissioned to make a presentation of the topic.

SUGGESTED TOPICS

The population crisis and the role of the teacher

Right at the commencement of the course, the trainee Population Educator needs to be alerted to the gravity of the threat posed by population problems (rapid population growth as well as urbanization), both at the macro-level of the nation and the micro-level of the family, and the role that he should play in developing an understanding of the population situation and sharing his insights with others. In other words, some hard facts about the population situation, as it affects and would affect the people of his own country as well as the world in general, require presentation and emphasis early enough to serve both as a motivational factor and as a strategy to enlist his active involvement in making the facts of the population crisis known by means of educational programmes, and in encouraging individual action and collective action for constructive solutions to the problems that have already arisen or would arise in the future.

Introduction to the study of population

A historical survey, in broad outline, of the growth of world population upto about A.D. 1900, and a somewhat more detailed account of population growth from about A.D. 1900 until the present time in a few representative countries, selecting them from among the more - developed countries and the less - developed countries, would serve to place the population situation in historical perspective, and to underline the main differences that are seen to exist between these two groups of countries, as well as the causes that have given rise to these differences. A discussion of the theories of population growth associated with the names of Thomas Malthus and Karl Marx is also appropriate at this stage. They offer interesting contrasts in many respects, and while Malthus is only of historical interest, the writings of Marx still influence the thinking of Communist parties in many developing countries, in disregard of the fact that the U.S.S.R. itself has now deviated in some measure from the traditional Marxist position.

With this historical background, the way should be clear for examining some of the ways in which population data is collected and analysed. The use of periodical censuses, systems of civil registration, migration records, and sample surveys should be discussed, pointing out some of the errors that can enter into the collection of population data. This can be followed by a discussion of the three demographic processes of birth,

death and migration which are responsible for changing population size. The methods of calculating crude birth rates, crude death rates, and the rates of natural increase of population can then be explained. The concepts of the age distribution and dependency ratio may with advantage be discussed at this stage, as they are central to the investigation of the relationships between population growth and such factors as educational development, economic development or employment. In so far as other indices such as the general fertility rate, age-specific fertility rates, total fertility rate, gross reproduction rate, net reproduction rate, child-woman ratio, general mortality rate, and age-specific mortality rates are concerned a discussion of these is better spread out over a period of time than dealt with in a concentrated course. This is because many otherwise intelligent persons are known to take fright at the sight of numbers, and may not be able to cope with a sustained exposure to numerical relationships. If, however, the presentation of these indices is spread over a period of time, the average Population Educator in training should have no difficulty in grasping their significance and appreciating the progressive refinement that enters into them. The concept of expectation of life is also important, and a general idea may be given of the way in which the relevant calculations are made. The use of population projections, for social and economic planning, employing different fertility and mortality assumptions, may also be discussed, and a brief account given of the manner in which such projections are made.

A discussion of the factors associated with fertility and mortality would be useful. The factors associated with mortality could be dealt with a great deal more easily than the factors associated with fertility, as they are less complex. While there are differences in mortality factors as between the more developed countries and the less developed countries, there is a certain homogeneity within each group. In the case of fertility, however, our present knowledge of the factors associated with fertility is limited and a great deal more research needs to be done. It is clear, however, that the factors considered to be associated with fertility show great variations between one culture and another. As a programme of family planning in any country has to take full cognisance of the factors associated with fertility in the various groups - ethnic, religious or cultural - that form a country's population, a discussion in some depth of these factors would prove valuable.

Population and nature

Two sub-topics to be dealt with under this head are:

- (a) Population growth and natural resources;

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(b) Ecological problems.

Some indications follow regarding the issues to be considered under each.

(a) Population growth and natural resources

Extent and soil quality of land; forest resources; population growth and land use; availability and management of mineral resources (coal, petroleum, gas, iron, tin, etc.); availability and management of water resources; marine resources (fisheries, salt and other chemicals, marine flora); the generation of energy (peat, coal, oil, gas, hydro-electric power, nuclear energy).

(b) Ecological problems

Problems of pollution (soil, air and water) arising from population growth and industrialization. Problems of maintaining ecological balance.

Health, nutrition and population growth

Two sub-topics to be dealt with under this head are:

(a) Population growth, food and nutrition;

(b) Population growth and health.

Some indications follow regarding the issues to be considered under each.

(a) Population growth, food and nutrition

Inadequacy of existing levels of nutrition; contribution of the green revolution to cereal production; financial inputs (including foreign exchange) necessary for increasing yields and the resulting drain on the finances available for other investments; the masking by global production figures of possibilities of episodic shortages, country-wise; problems in closing the protein gap; possible advantages arising from the food and nutrition angle by a slowing down of the rate of population growth.

(b) Population growth and health

Health conditions in countries which have rapid population growth; health hazards from industrialization; nutritional

deficiencies and their effects on health; health risks associated with age of pregnancy, intervals between pregnancies and the number of pregnancies; inadequacy of existing health services as judged by the number of health personnel, hospital beds etc., per 10,000 of the population; financial and manpower problems in expanding health services under conditions of rapid population growth.

Population growth and economic development

Three sub-topics to be dealt with under this head are:

- (a) Population growth and the national economy;
- (b) Population growth and employment;
- (c) Population growth and the rural economy.

Some indications follow regarding the issues to be considered under each.

(a) Population growth and the national economy

Impact of population growth on the cost of living, private savings, national income, national budget, public savings capital formation and investment, industrial development, productivity.

(b) Population growth and employment

The size of the entrants to the labour force under different fertility assumptions; problems in the absorption of the population of working age in employment; problems of the quality of the labour force; problems of manpower shortages in certain sectors; personal and social consequences of unemployment.

(c) Population growth and the rural economy

Trends in land holding; rural unemployment; the loss to rural areas arising from migration to urban areas; the return migrant.

Population growth and social development

Three sub-topics to be dealt with under this head are:

- (a) Population growth and education;
- (b) Population growth, housing and public utilities;

(c) Social problems associated with population growth.

Some indications follow regarding the issues to be considered under each.

(a) Population growth and education

The present status of literacy, and the constraints imposed by rapid population growth on the elimination of illiteracy; the additional places required in educational institutions at all levels if present trends in population growth are maintained, and the advantage of a reduction in population growth from the point of view of these requirements; the low enrolment ratios, high drop out rates and the difficulties involved in bringing about an improvement while population is rising rapidly; the present expenditure on education as a percentage of the national budget or as a percentage of G.N.P., and the estimated future expenditure under alternative conditions of fertility; past trends in per capita pupil expenditure and the prospects for the future; impact of rapid population growth on teacher requirements and teacher pupil ratios; rapid population growth as a constraint on the possibilities of qualitative improvements in education and in human resource development.

(b) Population growth, housing and public utilities

The housing situation as at present; housing requirements for the future under different fertility assumptions; problems in the provision of housing; the provision of water supplies; the provision of sewerage and the treatment of waste water; the disposal of garbage and solid waste; fire protection; the supply of recreational facilities; the provision of transportation services.

(c) Social problems associated with population growth

Social problems of urbanization; delinquency and crime; inter-group tensions; social unrest.

Population and international relations

The following issues may be dealt with under this head: population pressure and economic pressure arising from rapid population growth as factors affecting relations between countries; population pressure generating expansionist tendencies and military adventures; economic imperialism generated by population pressure or by economic pressure arising from rapid population growth; the effect of past migration policies on relations between countries.

Family life education

Three sub-topics to be dealt with under this head are:

- (a) Growing up in a family;
- (b) Family size and the quality of life;
- (c) Sex and reproductive behaviour. Family planning.

Some indications follow regarding the issues to be considered under each.

- (a) Growing up in a family

The functions of the family; the roles of the members comprising a family; inter-personal relationships within a family.

- (b) Family size and the quality of life

Impact on the health of the mother of her age at pregnancy, the spacing between pregnancies, and the number of pregnancies; impact of these and of maternal malnutrition on the child in the womb; factors conducive to optimum development in infancy and childhood; impact of family size on family income; impact of family size on the quality of life.

- (c) Sex and reproductive behaviour. Family planning.

The nature of human sexuality; sex as the fulfilment of love in marriage; the procreative and the non-procreative functions of sex; knowledge of methods of family limitation as a human right; clinical and non-clinical methods of family planning.

Population and the Asian countries

Two sub-topics to be dealt with under this head are:

- (a) Demographic and other socio-economic data relating to the Asian countries;
- (b) Population policies and programmes of the Asian countries.

- (a) Demographic and other socio-economic data relating to the Asian countries.

The following kinds of data would seem to be useful:

General - area of country;

Demographic - population, density, birth rate, death rate, gross reproduction rate, expectation of life at birth, dependency ratio, child dependency ratio;

Health and Nutrition - infant mortality rate, inhabitants per physician, inhabitants per hospital bed, per capita calorie consumption, per capita protein consumption;

Educational - percentage literate (age group 15 and over), primary enrolment as a percentage of age group 5-14, secondary enrolment as a percentage of age group 15-19, combined primary and secondary enrolment as a percentage of age group 5-19, female enrolment, pupil-teacher ratios, educational expenditure per pupil, educational expenditure as a percentage of the national budget, educational expenditure as a percentage of the G.N.P.

Economic - G.N.P. per capita; growth rate of G.N.P.; energy consumption per capita; employment data.

Other social - housing data, newspaper circulation per 1000, radios per 1000.

(b) Population policies and programmes of the Asian countries.

Statements of population policy by governments; views of unofficial leaders regarding population policy; taxation policies in their bearing on family size; the law and family planning; budgetary support for family planning programmes; family planning programmes and services.

Population Education

The importance of Population Education; the objectives and content of Population Education; strategies for introducing Population Education; research and evaluation in Population Education.

Conclusion

A course such as that outlined above should prove adequate in any country as an introductory training programme for generating the first cohort of Population Educators, provided that the

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persons undergoing the training are sufficiently interested to undertake reading, thinking and discussion on their own to sharpen their insights and enhance their competence. It should then be the responsibility of this pioneer group to undertake programmes for training more Population Educators, with perhaps a little assistance from the nuclear group which trained them, and to plan courses in Population Education for the various target groups that have to be reached. It is through means such as this that a programme of Population Education could start moving and gradually gather sufficient momentum to make a country-wide impact.

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Bangkok, Thailand

SOME CONSIDERATIONS RELEVANT TO THE FORMULATION OF A NATIONAL
PROGRAMME OF POPULATION EDUCATION*

by

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The need for Population Education

The need to introduce Population Education into the curricula of educational institutions, into the programmes of education for out-of-school youth and adults, and into pre-service and in-service programmes for training personnel for the broad spectrum of occupations in society that involve work with people in an essentially ameliorative role (teachers, social workers, nurses, community development workers, and agricultural extension workers, for example) arises principally from the realization that whether the objective is the welfare of a country or a nation, or the welfare of an individual family, an enlightened awareness about population issues culminating in social action and personal decision-making in accordance with such awareness could contribute towards the achievement of the above objectives, whereas lack of such awareness, and the increased probability of nonchalance as well as of irresponsibility, could work in the opposite direction and aggravate an already, unsatisfactory situation.

As needs can be postulated with varying degrees of seriousness, it is important to emphasize that Population Education is a matter of the greatest urgency in that the risks to the conduct of civilized life involved in the complex of problems associated with the growth of population are of such magnitude that every single day's delay intensifies them and increases the effort that has to be made to cope with them. It should be a disturbing thought to realize that, if present rates of population growth continue, the present population of the world would be doubled in less than 30 years, that Asia alone would have to hold within it the equivalent of the present population of the world, when its present half share has itself proved to be such a constraint on development. Not only has the pressure on

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resources of land and agriculture become more acute, the social economic and educational scenes present no less bleak a prospect. In spite of massive inputs into education, Asia has more illiterates, aged 15 years and above, today than ten years ago, more children between 5 years and 19 years out of school today than ten years ago. A rapid rate of population growth has severely limited investment, the capacity for economic growth, and the potential rate of growth of average income, thereby reducing the pace of improvement of standards of living. Concurrently with the absolute growth in numbers, there has been an increasing degree of urbanization, with its attendant problems. Shortages of housing, water supply and sanitation have combined with water and air pollution to make urban living increasingly hazardous. These and other features of the demographic situation have contributed in substantial measure to the malaise of crime, violence, conflict etc. which is plaguing most countries of the Asian region. It is in the context of this disturbing situation that action is needed today if there is to be a better tomorrow. Assuming, with some degree of over-simplification, that the key problems which countries face in this field are 1. the rapid growth of numbers in the population 2. urbanization, each requires a national strategy for coping with it. By and large, this paper confines itself to a consideration of the framework within which Population Education could play a role in setting in motion processes to contain population growth within reasonable limits. While some of it may undoubtedly be relevant to a discussion of urbanization, urbanization is too complex an issue to be adequately considered within a small compass and is therefore consciously left out of the scope of this paper.

The distinctive roles of Population Education and Family Planning Education

It is necessary at the outset to spell out in a little detail the distinctive roles of Population Education and Family Planning Education, as there is much confusion about them. The latter, Family Planning Education, being more limited in scope and less complex conceptually, can be defined simply as education in the techniques of conception control and birth control that make it possible for an individual family to have no more children than it desires. It consists of the provision of information about the availability and uses of specific techniques, the facilities for their adoption, and the precautions, if any, to be borne in mind in using them. The aim of Family Planning Education is essentially one of immediate practicality. The target groups for Family Planning Education are firstly husbands and wives, and secondly those about to be married. Both the objective of

Family Planning Education and the philosophy underlying it are relatively straight forward and easy to understand. There is much more complexity about Population Education. The objective of Population Education is "to give the learner an insight into the totality of issues connected with population, ranging from the nature, measurement, causes, determinants and consequences of population growth as well as of urbanization both at the micro-level of the family and at the macro-level of the community, the nation, or the world at large to the dynamics of the reproductive process, and finally to the possibilities of planning family size and population growth".^{1/} It is, of course, hoped that "the acquisition of such an insight may succeed in providing the learner with a sound cognitive and attitudinal basis that would contribute to rational decision-making, both as an individual and as a member of society, when occasions for such decisions arise".^{2/} While it would be idle to pretend that exposure to a course on Population Education would definitely ensure a decision that is productive of both individual and social good, it is reasonable to expect that the probability of a rational decision from a person who has had such educational experiences is much higher than from a person who has not had an orientation to population issues. An obvious situation in which a personal decision will be involved will arise in adulthood, when an individual is faced with the process of decision-making in relation to reproductive behaviour. The individual who has derived benefit from a Population Education programme is likely at this stage to opt for planned parenthood, in the realization of which Family Planning Education would have a key role to play by putting him/her in possession of the know-how for regulating reproductive behaviour. In this sense, while the roles of Population Education and Family Planning Education are distinctive, they have also a certain complementariness of function eventually manifesting itself.

The content of Population Education

Five broad areas within which the content appears to fall may be demarcated.

A. The collection and analysis of population data -

A possible break up of the content under this head would be as follows: methods of collecting population data; the demographic processes of birth, death and migration; birth, death and growth rates; the age structure of a population; causes underlying different age structures; consequences of different age structures; determinants of fertility, morbidity and mortality; trends in population growth; refined indices of fertility and mortality.

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B. Population growth and human development -

At the macro-level of the nation, the topics to be considered would be the relationships between population growth and such variables as land and other natural resources, agriculture, food and nutrition, housing, health services, educational development, employment, economic development and per capita income.

At the micro-level of the family, the topics to be considered would be the impact of family size on the quality of life in the family, and on the various aspects of development of the individual members.

C. The problems of urbanization -

Housing, transportation, supply of water and other utilities, air and water pollution, urban unemployment, social deviance, intergroup tensions.

D. Family life education -

The family as a basic social unit. Functions of the family. Family roles. Factors strengthening or weakening family life. Psychosocial aspects of human sexuality. The reproductive process.

E. Planning to cope with the problems of urbanization and population growth -

Strategies of planning and their implementation at regional and national levels, through individual, social and governmental action, will be discussed.

It should be stressed that the above course taken in its entirety would be too weighty an undertaking except for a select group of persons who are to become high level Population Educators themselves. In so far as other groups are concerned, there will have to be a substantial measure of selectivity, in regard to both the width of content and the depth of content, and the particular "mix" appropriate for each group has to be determined partly by a priori considerations and partly by trials on an experimental basis. Regard will have to be paid in particular to such issues as the objectives Population Education is expected to accomplish for each group of learners, the level of maturity of the learners, the socio-cultural background of the learners and the attitude of society to certain kinds of learning, the content of other components of the curriculum (when the learners are already in an institution), the availability of instructional materials,

and the personnel available for providing the instruction. Conformity with an external or universal model is neither possible nor desirable, and each country has to work out its own theory and practice of Population Education for each target group for which it is hoped to introduce it. An issue which has caused some discussion is whether sex education forms or does not form part of a programme of Population Education. This is a very sensitive matter, and cannot be resolved by reference to a particular dogma. Any attempt to thrust into a programme of Population Education elements about which significant sectors of society, such as parents, teachers and religious leaders, have serious reservations is to endanger the entire programme. The moral for curriculum planners is to adopt a strictly pragmatic approach that is sensitive to social pressures. Population Education is of such vital importance, even without sex education, that the surest way of ensuring its acceptance is to concede both in theory and practice the possibility of such exclusion, where the socio-cultural situation demands it. As Edward W. Pohlman and K. Seshagiri Rao rightly point out, there can be Population Education "clearly and loudly divorced from sex education", although an understanding of sex education would give a more complete picture to Population Education.^{3/}

Towards a national programme of Population Education

A national strategy for coping with the problems posed by rapid population growth will have two components. The first is a family planning component supported by Family Planning Education directed at the married and the about to be married. While this component is a matter for the highest urgency and the highest priority, this paper is not concerned with it in any detail. The main concern here is with the Population Education component, as a definitive, long-term, second line of attack on the problem of the rapid growth in numbers, in its implications both at the macro-level and at the micro-level.^{4/}

As a pre-requisite to the formulation of a national programme of Population Education, it is necessary to identify:

1. the target groups which should be exposed to Population Education, and the precise objectives in respect of each group,
2. the resource persons to be used for reaching each target group,
3. the instructional strategies to be used,
4. the mechanisms for the production of instructional materials, and

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5. research needs and problems, including evaluation.

A few comments follow on each of these issues, not by way of an incisive analysis but merely to stimulate thinking about them.

1. Target groups

The following may be considered to be the main target groups, possibly in decreasing order not only of importance but also of immediacy, for a national programme of Population Education:

- a. The married and the about to be married, recognising, however, that in their case Family Planning Education would be of even more immediate relevance than Population Education.
- b. Other out-of-school youth and adults.
- c. Students in attendance at tertiary level institutions; also those following pre-service training courses for certain professions.
- d. Students in attendance at institutions at the secondary level.
- e. Students in attendance at institutions at the primary level.

A national programme of Population Education must not only recognise these categories of persons but also evolve strategies for reaching them. In point of fact, categories (a) and (b) constitute a specially elusive group, for they cannot be held captive readily and exposed to an educational or communication programme in the same way in which categories (c), (d) and (e) may be reached. To neglect categories (a) and (b) because of the difficulties of reaching them would, however, be to postpone a solution to the problems of rapid population growth and to risk the danger of accentuating them so as to add to the complexity of dealing with them. An obvious way of attempting to reach these two categories is through the media of mass communication, but this is more easily said than done. A radio programme, for example, does not guarantee listeners. Especially when several alternative programmes are available the number listening in to any given programme may be no more than a small fraction of the total number of listeners tuning in to their radio sets. And, what of the many thousands or tens of thousands who do not have radio sets? Clearly, a national pro-

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gramme of Population Education has to take into account such possibilities, and work out means of overcoming them. By what means are students in attendance at tertiary level institutions to be reached? It is true that they could be a captive audience, but in practice with a variety of optional courses available at tertiary level, by what mechanism do we ensure that they are reached? With fewer optional courses available at institutions at the secondary and the primary levels, one could perhaps be surer of reaching the students in them. While ease of reach is undoubtedly an advantage, the possible impact of a Population Education programme, especially at the primary level of education, should not be overestimated. Not only has the subject matter itself to be handled at a very low level of intellectual sophistication, the distance in time between the exposure to a programme of instruction and the stage of decision making in regard to reproductive behaviour is so great as to make the likelihood of a cause-effect relationship extremely tenuous.

From the point of view of the deployment of money and personnel, a national programme of Population Education has to take account of the priority order of target groups, and arrange to distribute resources in a manner that would yield the best returns. In other words, resort to ad hoc measures would be a poor investment, and there should be a planned programme, based on decision making that has taken account of relative priorities.

2. Resource persons

After the target groups have been identified and a priority order determined, attention has to be paid to the identification and the training of personnel who could work with the target groups. As Population Education is a new area of activity, there has been too little time within which to develop a tradition of specialisation with a sufficient number of persons competent within it. To say this, however, is not to elevate Population Education to an esoteric status and make it the preserve of a minority. In every country, there would be a handful of men and women whose combined expertise and insights would suffice for the development of a course on Population Education at any level at which such a course is needed. In general, they would be drawn from several fields of work. Some would be in universities, some in research institutions, some in government administration, some perhaps in agriculture or industry, and so on. They would not be professional Population Educators in the sense in which this designation is usually applicable. Essentially, their insights and expertise would be confined to one or two aspects of Population Education rather than to most of it or the whole of it. However, it is the combined insights and expertise of

this nuclear group that could bring into being the professional Population Educator, who could spend all or most of his time teaching or training others. In other words, by exposing a number of interested and enterprising persons (selected mainly from among the ranks of teacher educators and teachers perhaps) to the expertise and insights of the above mentioned nuclear group, brought together for a short period to transmit their expertise and insights, every country has to generate its first cohort of Population Educators, whose function it would then be to develop further the expertise and insights they have acquired from the nuclear group, and undertake to provide instruction in Population Education as well as to train more Population Educators. With this end in view, a national programme of Population Education has to give high priority to identifying a nuclear group such as that mentioned above, and to set up a training programme that would in course of time generate a sufficient number of Population Educators who would work with all the target groups that have to be reached. The fact that the two high priority target groups mentioned earlier are both outside the formal educational system calls for the deployment of a variety of personnel if Population Education is to reach them. Some of them would undoubtedly be engaged full time in Population Education; others, while not being full time Population Educators, should yet be sufficiently knowledgeable about population issues to present or discuss them intelligently. As an example of the latter, one might refer to the responsibility cast on the rural development worker, agricultural extension worker, public health worker, nurse, midwife, social welfare worker and allied categories of personnel to highlight in an informal way the issues of population growth and family size in so far as they are relevant to an improvement in the quality of life to be lived by the people with whom they are working. A national programme of Population Education should take into account the necessity for providing some training in Population Education to these categories of personnel, whose impact could be quite considerable notwithstanding the informal approach they would necessarily adopt. The possible use of mass media should also not be forgotten. Considering the role that media men could play in spot lighting population issues from time to time in an educative way, it is necessary that those among them who are especially interested in making a contribution in this sphere should be given the opportunity of receiving some instruction in Population Education. In so far as the category of the specialist Population Educator is concerned, institutions of teacher education are likely to be the chief source of supply of possible recruits for advanced training. In view of this, the teaching staffs of institutions of teacher education should

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be given every facility for equipping themselves for their important role. All in all, as an essential element in the development of a national programme of Population Education, the need exists to identify the various levels of training needed for resource personnel and to draw up a comprehensive plan for the provision of such training.

3. Instructional strategies

A national programme of Population Education will have to pay conscious attention to the identification of the instructional strategies to be used with the different target groups. For example, in so far as target groups (a) and (b) are concerned, is the strategy to take the form of a comprehensive programme of Population Education or an incidental programme or a mixture of both, and with what relative emphases? Using a face-to-face approach or mass media or a mixture or both? Using what communication techniques? With students in institutions of tertiary education, what combinations of compulsory or optional courses are to be used? Is Population Education to be introduced through a course designated as such, or by a course in demography suitably expanded in scope to make it include most of the elements of Population Education, or by giving particular emphasis to population issues in such subjects as economics, geography, sociology, biology, home economics, nursing and agriculture? Similar questions arise in relation to Population Education at institutions of the second level? Are population elements to be injected into courses in the social sciences, natural sciences, mathematics, home economics etc., or is a special course in Population Education to be provided? The answers to these questions cannot be settled entirely on pedagogical grounds. For example, considerations other than the purely pedagogical have to be brought to bear on a question such as whether Population Education is to be provided at a second level institution through the injection of population materials at various plug points in the existing curriculum, or through a specially designed and self-contained course in Population Education. Each strategy has its extra-pedagogical implications. Much the most economical way of introducing Population Education at the second level may be through a specially designed course, for such a course would require a relatively small number of resource persons as compared with a programme for infusion or injection; again, from the point of view of the time base involved, both the preparation of materials and the teaching may well take up less than what would be required if the strategy were infusion or injection. Rather than opt for a single strategy for the entire school system, a decision may be made to adopt one strategy in a specified number of schools and another strategy in the others. The important point to realize

is that, one way or another, hard decisions are involved and that the making of such decisions is a pre-requisite for the formulation of a national programme of Population Education.

4. Mechanisms for the production of instructional materials

The instructional strategies to be used with different target groups and the different training programmes for personnel will require a supporting service of instructional materials - books, pamphlets, charts, film strips, films etc., and it is necessary to draw up at the national level plans for their production and diffusion so that programmes can function smoothly. While there should be no insistence on a crippling uniformity or conformity, care should be taken to avoid unnecessary duplication of effort.

5. Research and evaluation

A national programme of Population Education would require considerable inputs at various points by way of research and evaluation to strengthen all aspects of the programme, and place it on a firm scientific basis. Note should be taken of this need at the very outset, and adequate machinery provided for a continuing programme of research and evaluation. Areas of research would no doubt include socio-cultural studies, attitudinal and behavioural studies, studies into problems of curriculum development, studies into instructional strategies, methods of training personnel, communication techniques etc. Moreover, every element of the programme should be under constant review by means of built in processes of evaluation.

Conclusion

While the five areas that have been discussed above in relation to the formulation of a programme of Population Education are important, it should be recognised that no finality about any of them is a necessary pre-condition for instituting a programme of Population Education. What is needed is that they should be very much in the picture, in the process of being tackled with adequate operational support as the programme moves ahead. It would be a denial of the urgency of Population Education to postpone the introduction of Population Education until anyone of them, however important, has been completely settled. The two extreme positions to be avoided are, on the one hand, that of undertaking unco-ordinated activities here and there in an ad hoc manner without any relationship to the components of a total

programme, and, on the other hand, that of being so engrossed in achieving finality about one component or another so as to be unable to initiate activity even in a rudimentary manner.

The components that have to enter into a national programme of Population Education are such that the co-ordinating and management aspects of the programme would require considerable attention. It should be a matter of the very highest priority to establish a National Council of Population Education, headed by the Minister of Education, and with a broad representation drawn from all sectors, governmental as well as non-governmental, relevant for promoting Population Education. It should be the task of the Council to announce a national programme of Population Education, give guidelines for implementation, and lay down the administrative arrangements that would become necessary for executive action as well as for achieving co-ordination at the many levels at which such co-ordination is essential for effective implementation of the programme. The Council should have its own advisory committees to which issues could be referred for study and report, on the basis of which the Council could make the decisions. The chief operational leadership in the programme should rest with a Director of Population Education, answerable for the discharge of his duties to the Minister of Education and the National Council of Population Education. Some components of the programme will be operated by officers working directly under him; other components will be operated by appropriate agencies not directly under him, and in this case his duty would be to maintain an effective liaison with them, acting as the intermediary between them and the Council. Such an organizational set up appears to be necessary if a national programme of Population Education is to be launched with success. The details will, of course, vary from one country to another.

Notes and References

1. Jaysuriya, J.E. "Population Education and the School Curriculum", Trends in Teacher Education, June 1971. p. 3.
- 2.. Ibid.
3. Pohlman, Edward W. and Rao, K. Seshagiri. "Population Education Versus Sex Education," in Mehta, T.S., Parakh, B.S., and Saxena, R.C. (eds). National Seminar on Population Education, New Delhi: NCERT, 1969.
4. Apart from its instrumental value, a strong case can be made for Population Education qua education. It is, however, outside the scope of this paper to do so.

POPULATION EDUCATION: ITS GOALS AND ITS NATURE*

by

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A collective concern on the part of the Member States of the United Nations about the implications of population growth and distribution for development found cogent expression in a declaration, now known as the United Nations Declaration on Population, issued by the Secretary General of the United Nations on Human Rights Day, 10 December, 1966. The countries which sponsored the Declaration and subscribed their signatures to it consisted of three developed countries, namely Sweden, Finland and Yugoslavia, and nine developing countries, namely Columbia, India, Korea, Malaysia, Morocco, Nepal, Singapore, Tunisia and the United Arab Republic. There has been no looking back since then, the concern with population problems has become almost universal, and a large number of other countries have added their signatures to this Declaration.

While both the developed and the developing countries have been affected by population growth and/or distribution in one way or another, the concern of the developing countries has been particularly pronounced. It has clearly arisen from the appreciation by these countries of a number of factors.

1. The demographic situation in the developing countries has changed dramatically since the end of the second World War. The Asian Region which exemplified this change on the most gigantic scale has seen its population increase from 1300 millions in 1950 to 2000 millions in 1970.

2. The increase in population has created enormous needs for

- food
- housing
- health services
- educational services
- and employment, for example.

These needs are now met only at a very inadequate level. The prospect for meeting them in the immediate future even at the present inadequate levels is bleak, as the increase in numbers for whom provision has to be made in the immediate future is much greater than the increase of numbers in the immediate past. This arises from the fact that while in 1950 the number of potential fathers and mothers for the next twenty years was about 650 million, the situation in 1970 was that there were an estimated 1000 million potential fathers and mothers for the twenty year period after 1970. In other words, the potential for a rapid increase in population in the 1970's and 1980's is already there, as the result of past reproductive behaviour.

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3. Aspirations for a better quality of life are unlikely to be realised, except in very insignificant measure, during the next 15-20 years on account of the crippling burden of past population increase.

4. There has to be a considerable slowing down of the rate of population growth from now onwards, if a better life is to be assured for the people, beginning 15-20 years from now.

5. While rapid population growth represents the crux of the problem, it has also generated problems of distribution affecting both the rural and the urban sectors. The quantum of per capita agricultural land in the rural sector has declined considerably, encouraging rural - urban migration and causing in urban areas the stresses and strains accompanying rapid concentrations of population.

These basically are the issues that have caused the current concern about population in the developing countries, and made them look to the United Nations and its specialised agencies for assistance in coping with them. The General Conference of Unesco passed in 1966 a resolution to the effect that a Committee of experts should look into the question of defining Unesco's responsibilities in the field of population. This Committee made recommendations relating to Education, Mass Communication and Social Science, the three areas for which Unesco is specially responsible. In the area of Education, the recommendations were as follows:-

1. The extent to which and the processes by which education affected reproductive behaviour should be investigated.
2. The impact of demographic factors on the planning and development of education, in both quantitative and qualitative terms, should be studied.
3. Population materials should be introduced into curricula both at the elementary level and the secondary level.
4. Population materials should be introduced in literacy and adult education programmes.
5. The study of demography at the university level should be encouraged.

The General Conference of Unesco decided in 1968 that the following specific activities, among others, should be undertaken: helping in the development of teaching materials, curricula, teacher training, adult education, women's education, community education etc. In 1970 again, the General Conference of Unesco authorized the Director General of Unesco to pursue and undertake activities designed to promote the study of population at all levels of the educational system. It is, therefore, the task of Unesco to assist educators from the Member States to operationalise "the study of population at all levels of the educational system".

The purpose of providing this historical background is to suggest that the general goals to be achieved by the study of population, or by "population education" as this study may be called analogously to the use of the phrase "science education" for the study of science, should be formulated on a consideration of the factors that led Member States of the United Nations to express an interest in it, supplemented by analytical insights into the complex web of inter-relationships between population change and national development and the totality of the responses that may be encouraged as a way out of the trap of under-development in which the developing countries are caught. Moreover, whereas in the case of a field such as science education goals may be formulated starting from the nature of science and the activity of the human mind in regard to it, in the case of population education the absence of a corpus of knowledge called population requiring specific activities of the human mind in regard to it makes it obligatory to derive the goals for population education from historical and analytical considerations, and thereafter to delineate the nature of population education and the content of population education in the light of the goals that are sought to be achieved. On this basis, a possible formulation of goals may be couched in the following terms:

The general goals of a population education programme are to assist the learner, with due regard to his maturity;

1. to acquire an understanding of the inter-relationships between population change and selected aspects of quality of life in their bearing upon the individual and upon society,
2. to acquire the capacity to assess the quality of life implications now and in the future, for himself and for society, of alternative policies and actions bearing on population.

In connection with the first goal specified above, certain quality of life themes that have a wide consensus of acceptance across nations and cultures may be identified. They are: food and nutrition, health, housing, education, economic and social development including employment. It has to be recognised that the inter-relationships between population change and quality of life themes are not solely a function of population change. They are also a function of the other variables that enter into quality of life themes. Among these, three of the most significant are human resource development and utilisation, material resource development and utilisation, distributive justice, and the utilisation of technology.

In connection with the second goal specified above, it may be noted that actions or behaviour bearing on or relating to population encompass a very broad field. They range from those most readily recognised, such as reproductive behaviour, migration or non-migration to less obvious but equally significant ones, such as modest or excessive consumption of resources, contributing to pollution or refraining from population enhancing activities, denuding forests, using dynamite to catch fish - to give but a few examples, the justification for their inclusion being that they affect, favourably or adversely, the quality of life for oneself or others in relation to the selected themes.

The specific goals of a population education programme may be formulated within the context of each country with due regard to its national, religious or other goals. It is naturally the right of each country, to take a broad perspective of the scope of population education or a narrow one. If a broad perspective is taken, to equate population education with family planning education or population planning education would be tantamount to identifying a single possible element in the population education programme for a relatively mature age group as the entirety of the population education programme for all groups, regardless of age.

It may be noted that the formulation of general goals given above explicitly excludes any claim on behalf of a population education programme that it would ensure any particular kind of population-related behaviour. All that may be said is that if a person has been adequately exposed to a programme of population education he is likely, with a higher degree of probability than a person who has had no such exposure, to weigh the consequences of population related action and behaviour on his part from the point of view of their implications for individual, family and community welfare, and in the light of the assessments he has made, hopefully act in such a way as to contribute to that welfare.

If the general goals of a population education programme are such as those outlined above, it is clear that the substantive content to be included in the programme would not readily come from any one recognised field of study. The content will have to be drawn selectively from a number of fields such as geography, demography, sociology, anthropology, psychology, economics, agriculture, science, medicine and technology, and requires the cooperation of scholars in these and other relevant disciplines. It is not, however, necessary that before any programme of curriculum development is started a complete corpus of knowledge built on this basis should be available. It should be possible to begin with whatever is readily available or readily assembled, and allow the complete corpus to take shape in course of time with systematic additions. The educator concerned with curriculum development has to identify from whatever corpus is available at any particular point of time the particular facts or concepts that may appear to be appropriate for the learners he has in mind. He has then to decide the teaching strategies and learning experiences to be used, and test them out in field trials, with a view to revision in the light of the feedback from such trials before diffusion on a wider scale is attempted. It is, of course, expected that the field trials that are carried out would pay as much attention to the process of learning as to the content of learning.

When population education has to be introduced in a country in which there is already in use an accepted curriculum, with textbooks based on it, the introduction of population education becomes a special exercise. Special lessons, sub-units or units have to be prepared for teaching, and teachers have to be given an orientation for the purpose of teaching them. There are, however, countries in which a radical reorientation or revision of the curriculum to make it more relevant to contemporary social needs is in process or round the corner. In such countries population related materials may readily

get incorporated as part of the overall re-orientation or revision that is being attempted, as their claim for inclusion on grounds of relevance to social needs is indisputable. One does not have to speak of a special exercise called population education in such a setting, for the inclusion of population related materials would or could become an integral part of the total exercise of curriculum revision that is under way. To say this is not to deny that lacunae exist in the knowledge and research base for population education, but it is important to recognise that a great deal of content already exists for immediate utilisation. To be sure, curriculum development personnel and textbook writers need some exposure in regard to the conceptualisation of population education, most of all to wean them from the idea that population education means telling children at every turn that a small family is better than a large family. The magnitude of the preparation required for curriculum and textbook writers need not, however, be exaggerated. As far as the classroom teacher is concerned, there is no reason why such re-orientation as he is to be given in the presentation of the revised curriculum in its entirety should not suffice to make him capable of handling the population related materials in it as well, especially if the curriculum developer and the textbook writers have succeeded in introducing such materials in a relevant and natural way. From this point of view, a country in which curriculum revision is being undertaken is already in a setting that would permit quick progress to be made. Pakistan is clearly very much in this position, and it is hoped that the present Workshop would greatly contribute to the promotion of population education in the country.